Surge arrester

3-electrode arrester

Series/Type: T30-A230XFSMD
Ordering code: B88069X4771****
Version/Date: Issue 05 / 2010-06-23
Features
- Very small size
- Extremely fast response time
- High current rating
- Stable performance over life
- Extremely low capacitance
- High insulation resistance
- Reliable failsafe device
- RoHS-compatible

Applications
- Line protection
- Station protection
- Base stations

Electrical specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value 1</th>
<th>Value 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC spark-over voltage</td>
<td>230 V</td>
<td>± 20 V%</td>
</tr>
<tr>
<td>Impulse spark-over voltage</td>
<td>&lt; 400 V</td>
<td>&lt; 350 V</td>
</tr>
<tr>
<td>at 100 V/µs - for 99 % of measured values</td>
<td></td>
<td></td>
</tr>
<tr>
<td>at 1 kV/µs - for 99 % of measured values</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service life</td>
<td>10 A</td>
<td></td>
</tr>
<tr>
<td>10 operations 50 Hz; 1 s</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 operations [5x (+) &amp; 5x (-)] 8/20 µs</td>
<td>10 kA</td>
<td></td>
</tr>
<tr>
<td>1 operation 8/20 µs</td>
<td>10 kA</td>
<td></td>
</tr>
<tr>
<td>1 operation 10/350 µs</td>
<td>2 kA</td>
<td></td>
</tr>
<tr>
<td>Insulation resistance at 100 V&lt;sub&gt;dc&lt;/sub&gt;</td>
<td>&gt; 10 GΩ</td>
<td></td>
</tr>
<tr>
<td>Capacitance at 1 MHz</td>
<td>&lt; 1.5 pF</td>
<td></td>
</tr>
<tr>
<td>Transverse delay time</td>
<td>&lt; 0.2 µs</td>
<td></td>
</tr>
<tr>
<td>Arc voltage at 1 A</td>
<td>~ 30 V</td>
<td></td>
</tr>
<tr>
<td>Glow to arc transition current</td>
<td>~ 1 A</td>
<td></td>
</tr>
<tr>
<td>Glow voltage</td>
<td>~ 200 V</td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>~ 1.4 g</td>
<td></td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-40 ... +90 °C</td>
<td></td>
</tr>
<tr>
<td>Climatic category (IEC 60068-1)</td>
<td>40/ 90/ 21</td>
<td></td>
</tr>
<tr>
<td>Marking, blue negative</td>
<td>EPCOS 230 YY O</td>
<td></td>
</tr>
</tbody>
</table>

Remarks on the next page above
1) At delivery AQL 0.65 level II, DIN ISO 2859
2) In ionized mode
3) Test according to ITU-T Rec. K.12
4) Tip or ring electrode to center electrode
5) Total current through center electrode, half value through tip respectively ring electrode.
6) Voltage of the current source 230 Vrms

Terms in accordance with ITU-T Rec. K.12 and DIN 57845/VDE0845

The arrester failsafe mechanism contains an insulating foil with a melting temperature of 260 °C.

Arrester failsafe works at temperatures > 260 °C. The arrester has to be fixed mechanically, if the arrester is contacted by soldering and if the solder temperature is less than 260 °C.

**Dimensional drawing in mm**

**Ordering codes and packing advice**

*B88069X4771T702 = 700 pcs on SMD tape*  
*B88069X4771B502 = 500 pcs on trays*

**Cautions and warnings**

- The short-circuit spring does not trigger until 260 °C is reached depending on the sensor material. Care must be taken to limit the thermal radiation onto adjacent parts to safe values.
- If the contacts of the surge arresters are defective, current stress can lead to the formation of sparks and loud noises (bang).
- Surge arresters must not be operated directly in power supply networks.
- Surge arresters may become hot in case of longer periods of current stress (danger of burning).
- Surge arresters may be used only within their specified values. In case of overload, the head contacts may fail or the component may be destroyed.
- Damaged surge arresters must not be re-used.

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